

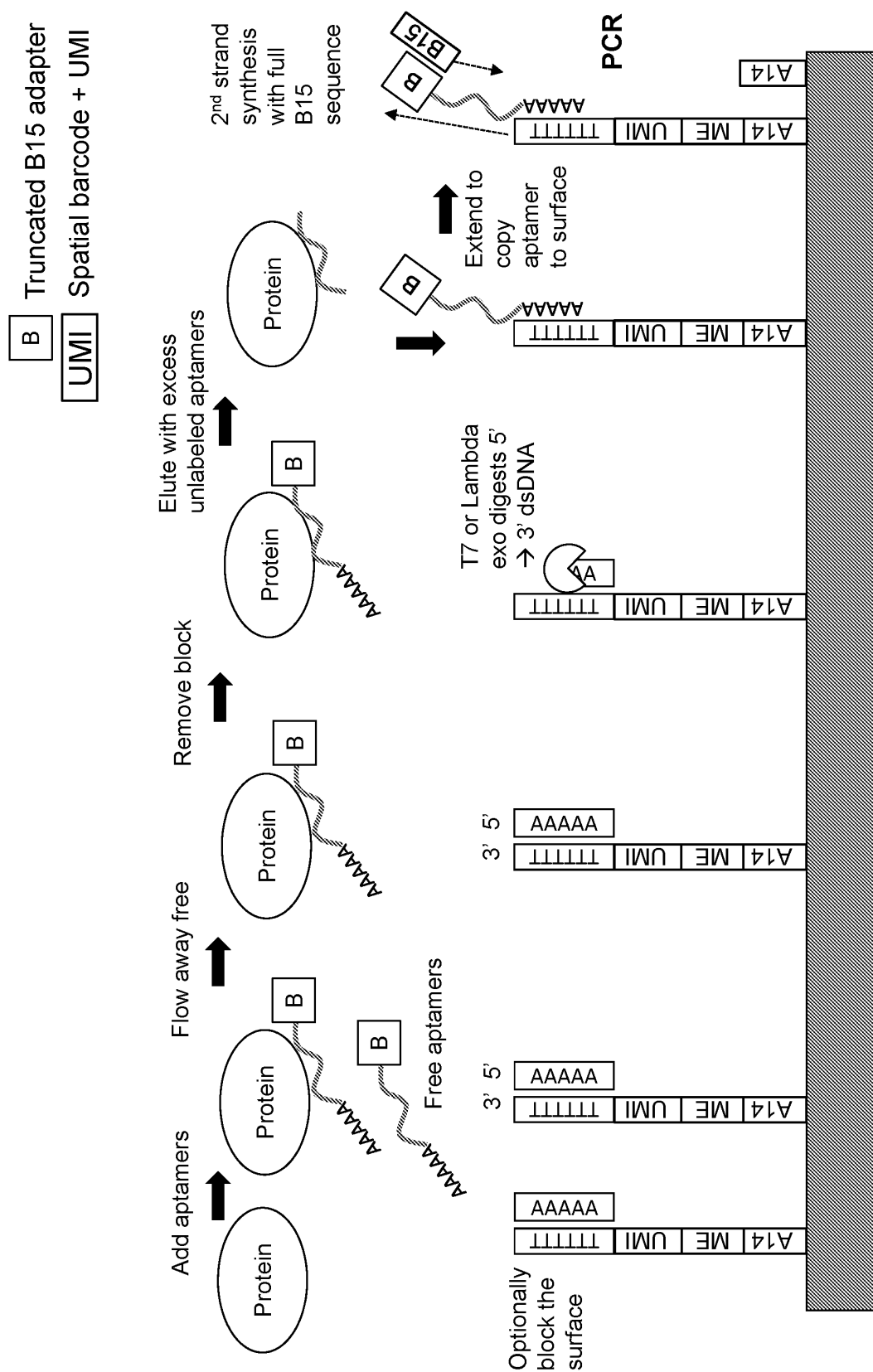


FIG. 1

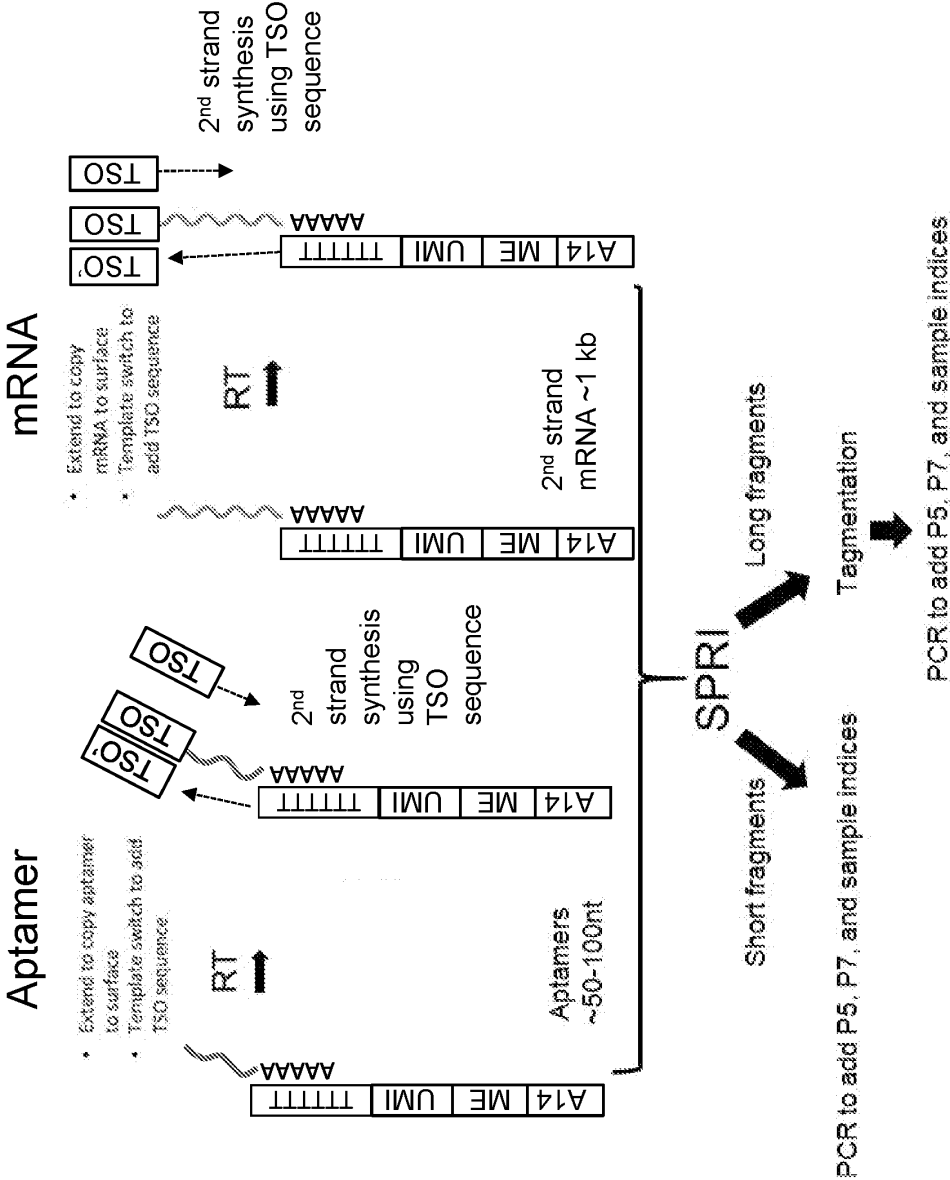


FIG. 2

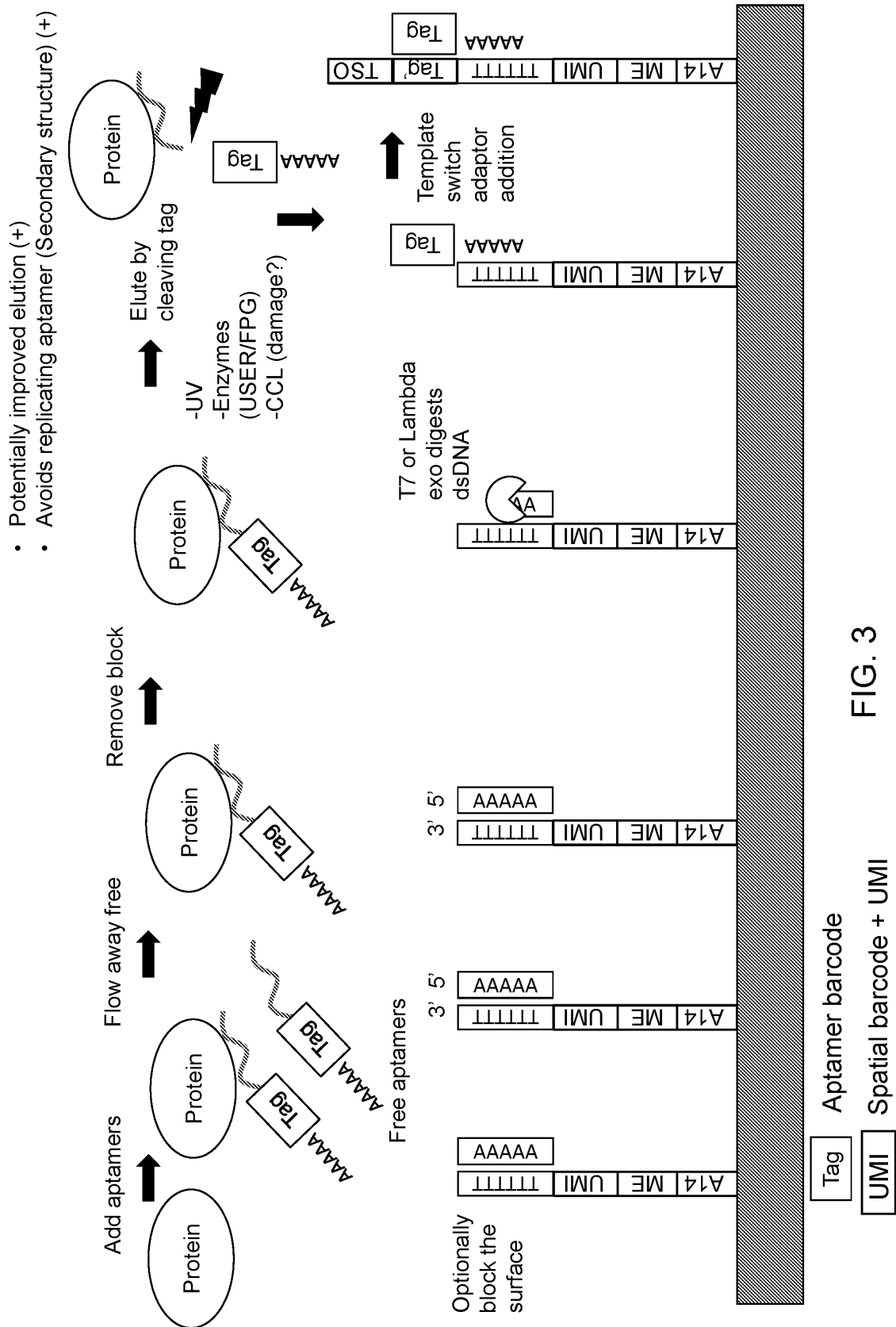
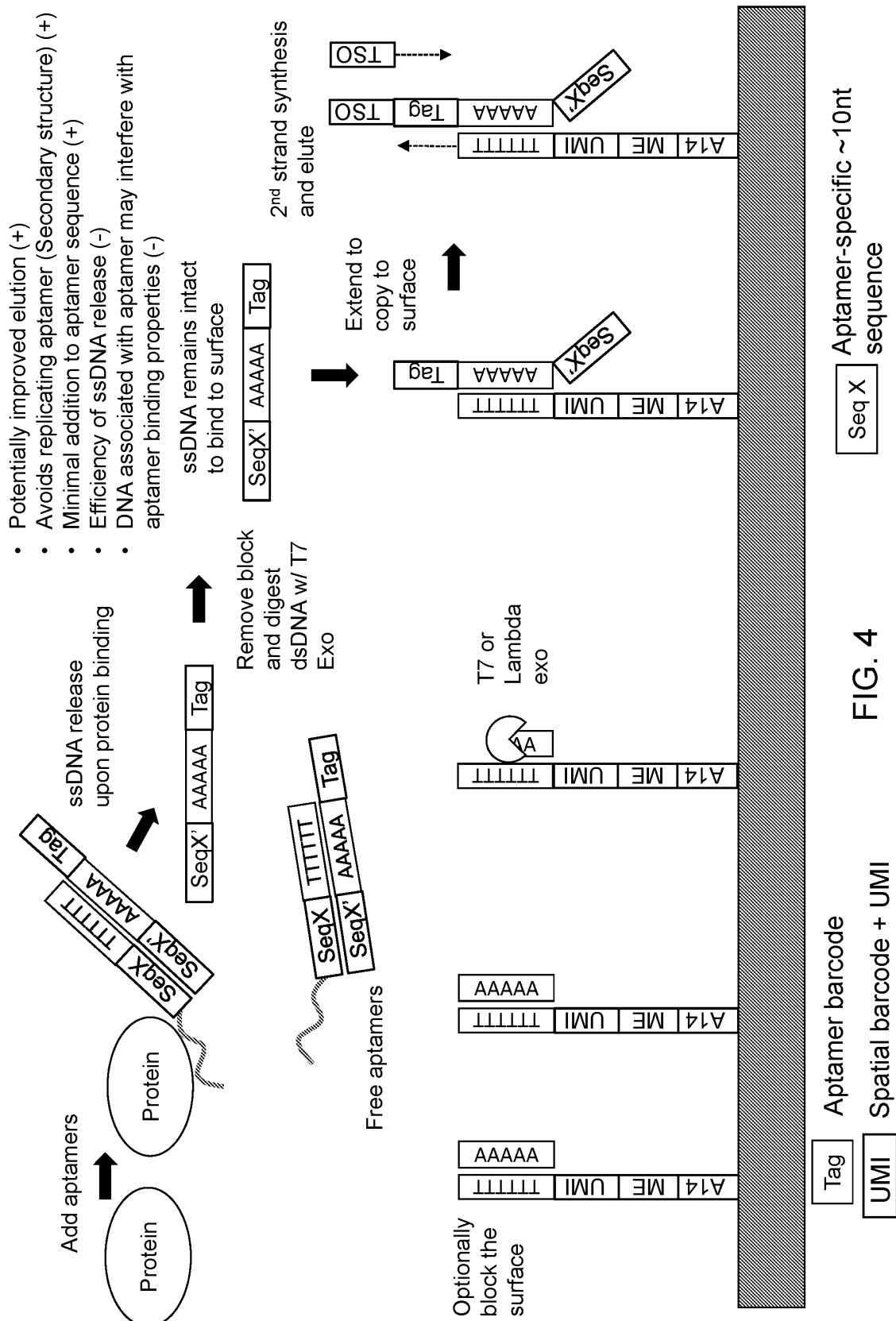


FIG. 3



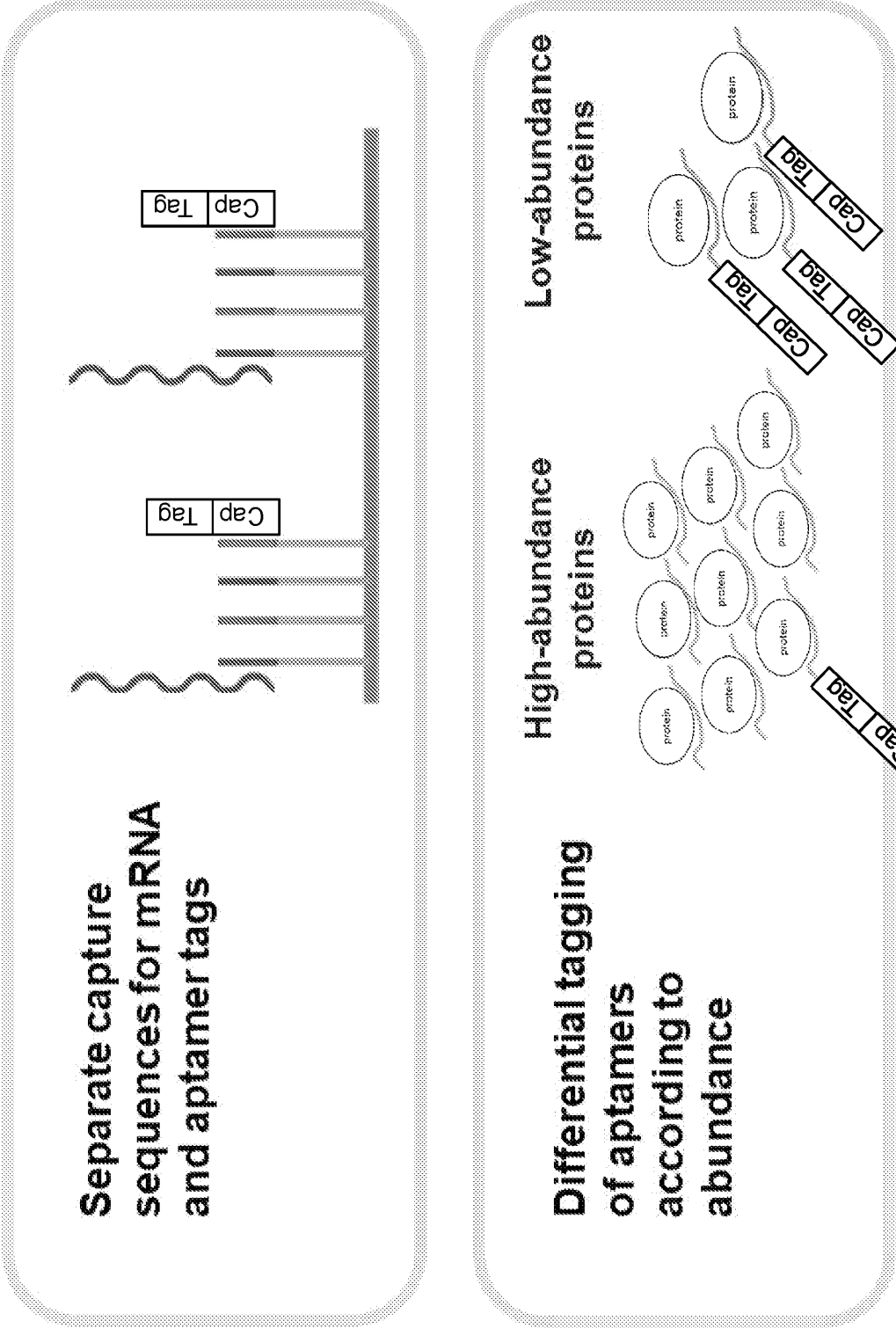


FIG. 5

FIG. 6A

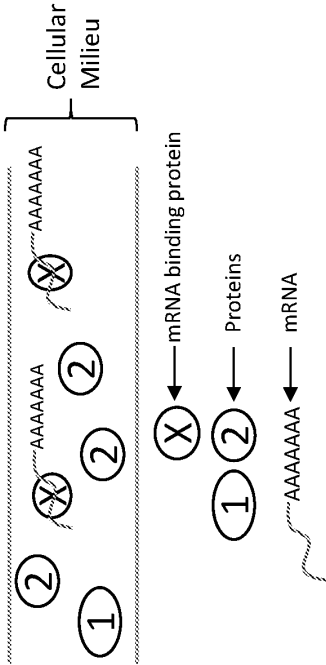


FIG. 6B

Permeabilise cell to allow aptamers in

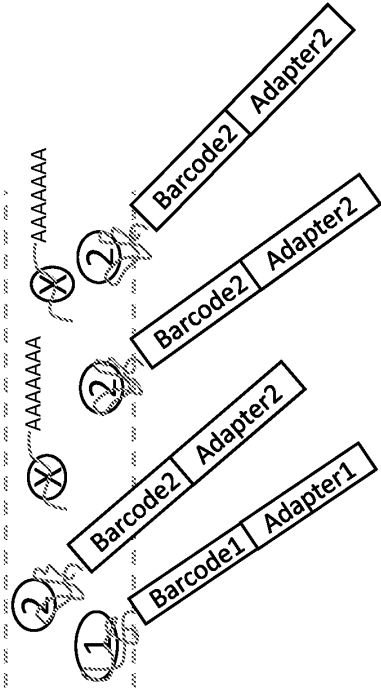


FIG. 6C

Surface primers blocked

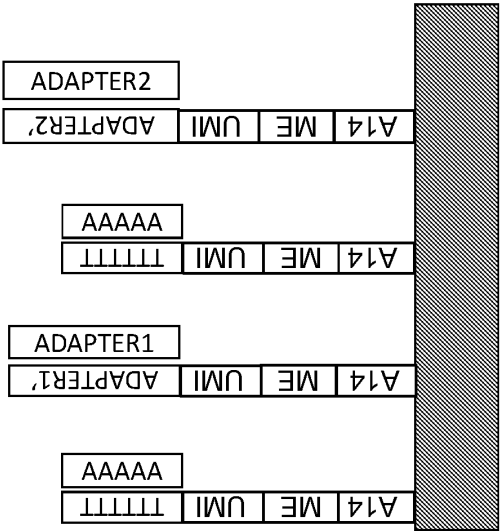
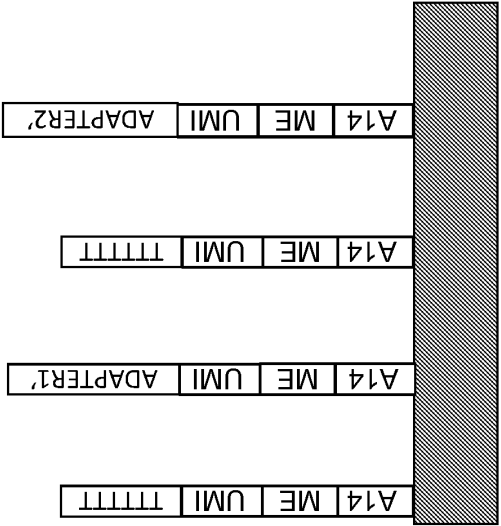


FIG. 6D

De-block surface primer



Reverse transcription and polymerase extension to copy mRNA sequence and aptamer barcodes

Digest proteins to release mRNA and aptamers and, optionally, add DRC blocker oligos

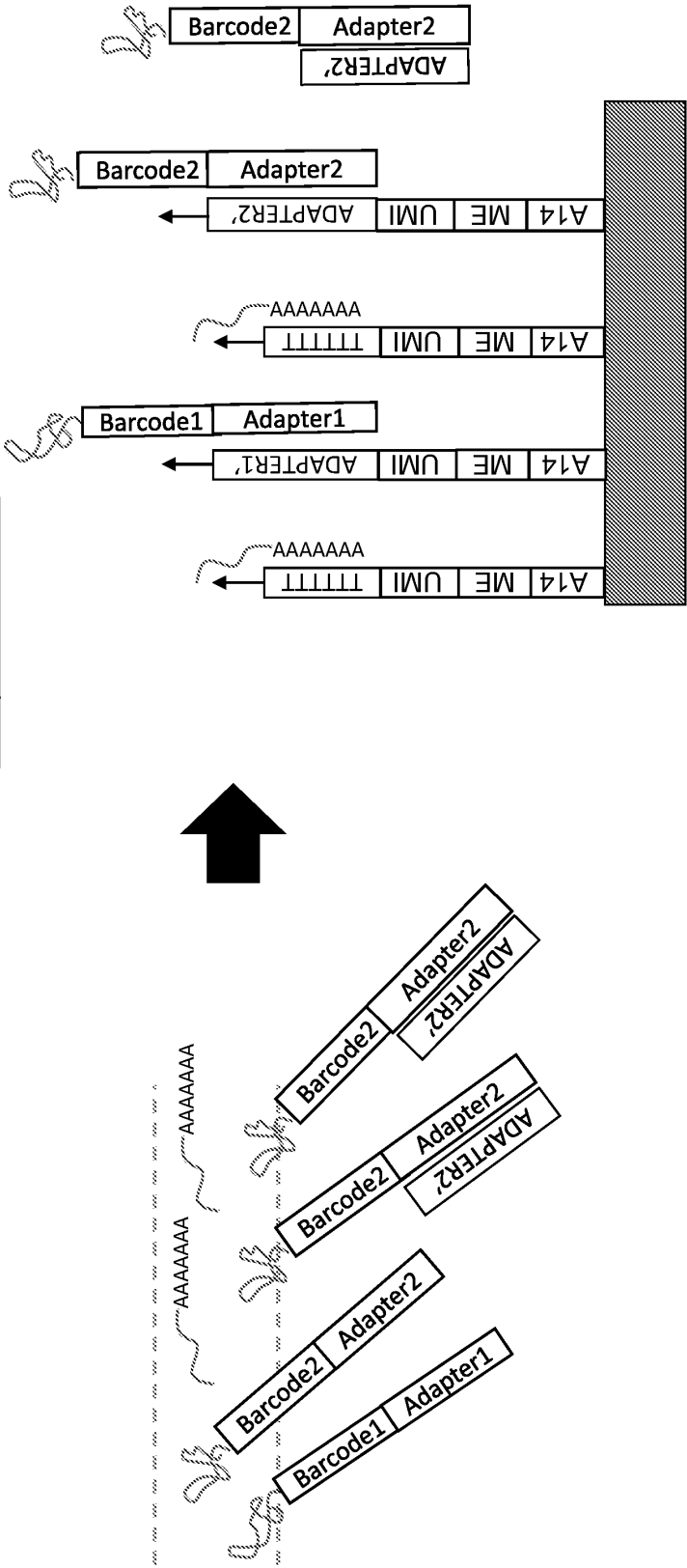
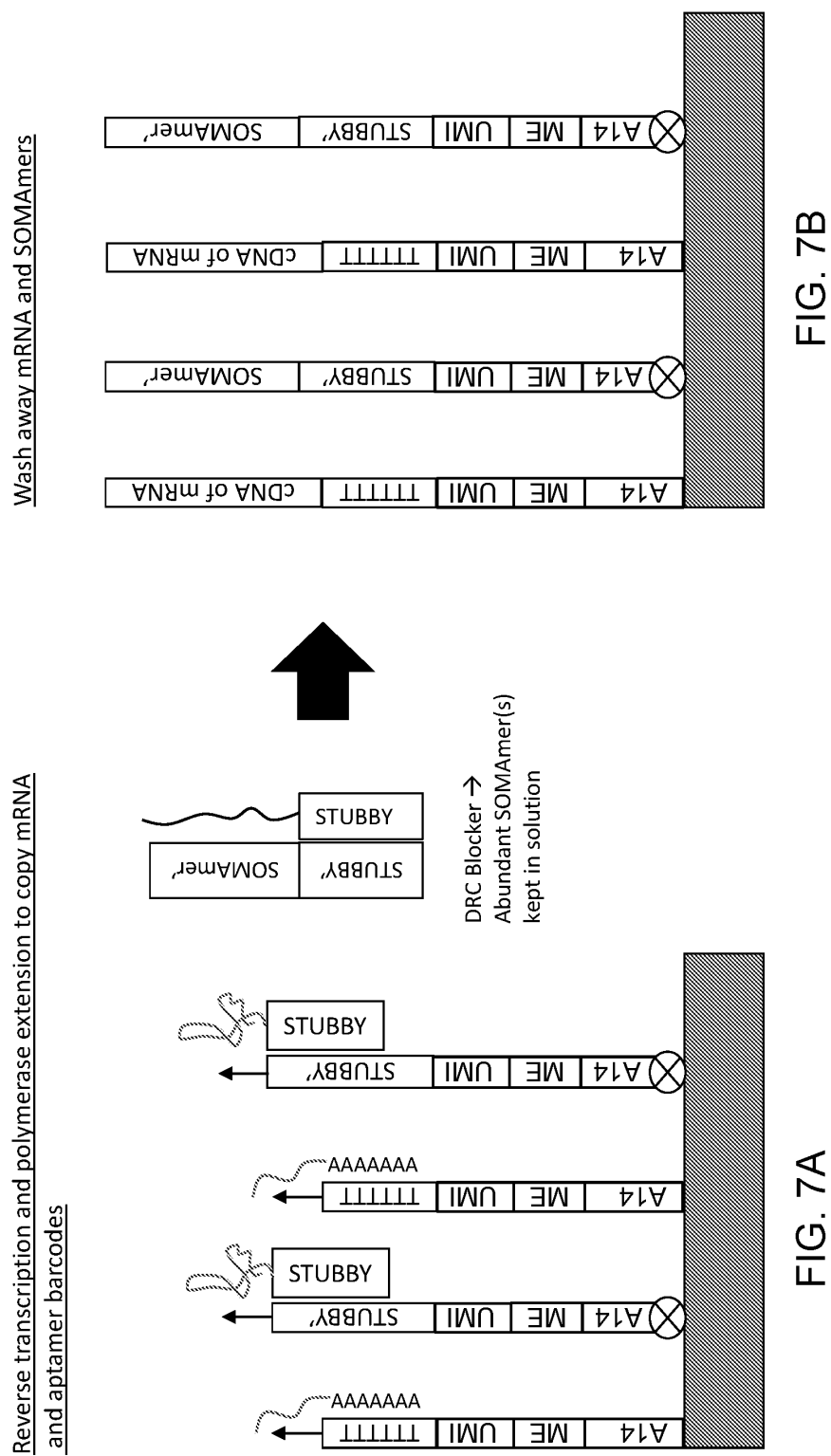


FIG. 6E

FIG. 6F



Release SOMAmer and proceed with library prep

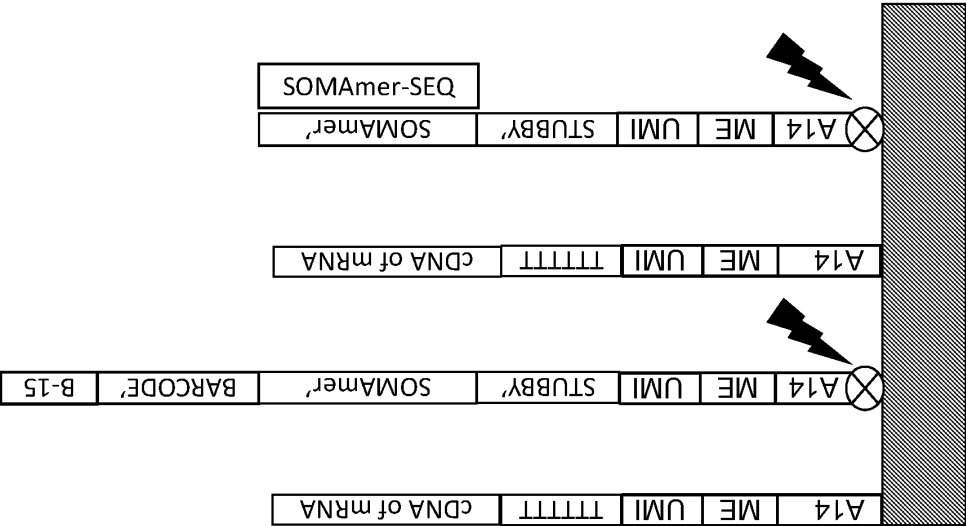


FIG. 7D

Add SOMAmer barcode oligonucleotide

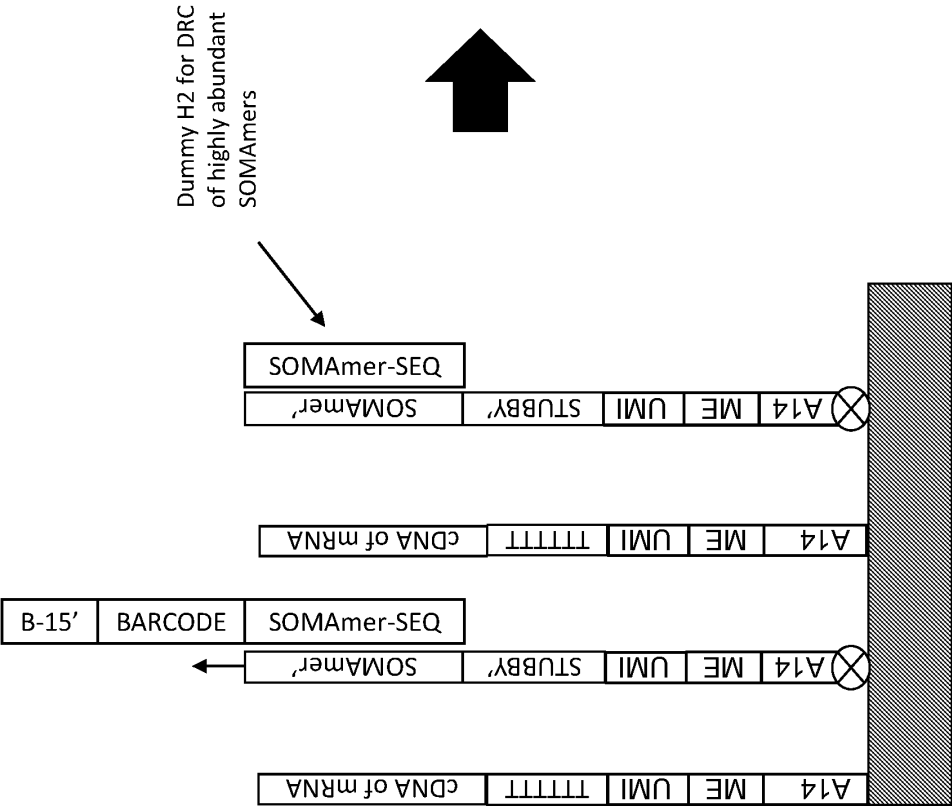


FIG. 7C

FIG. 8A

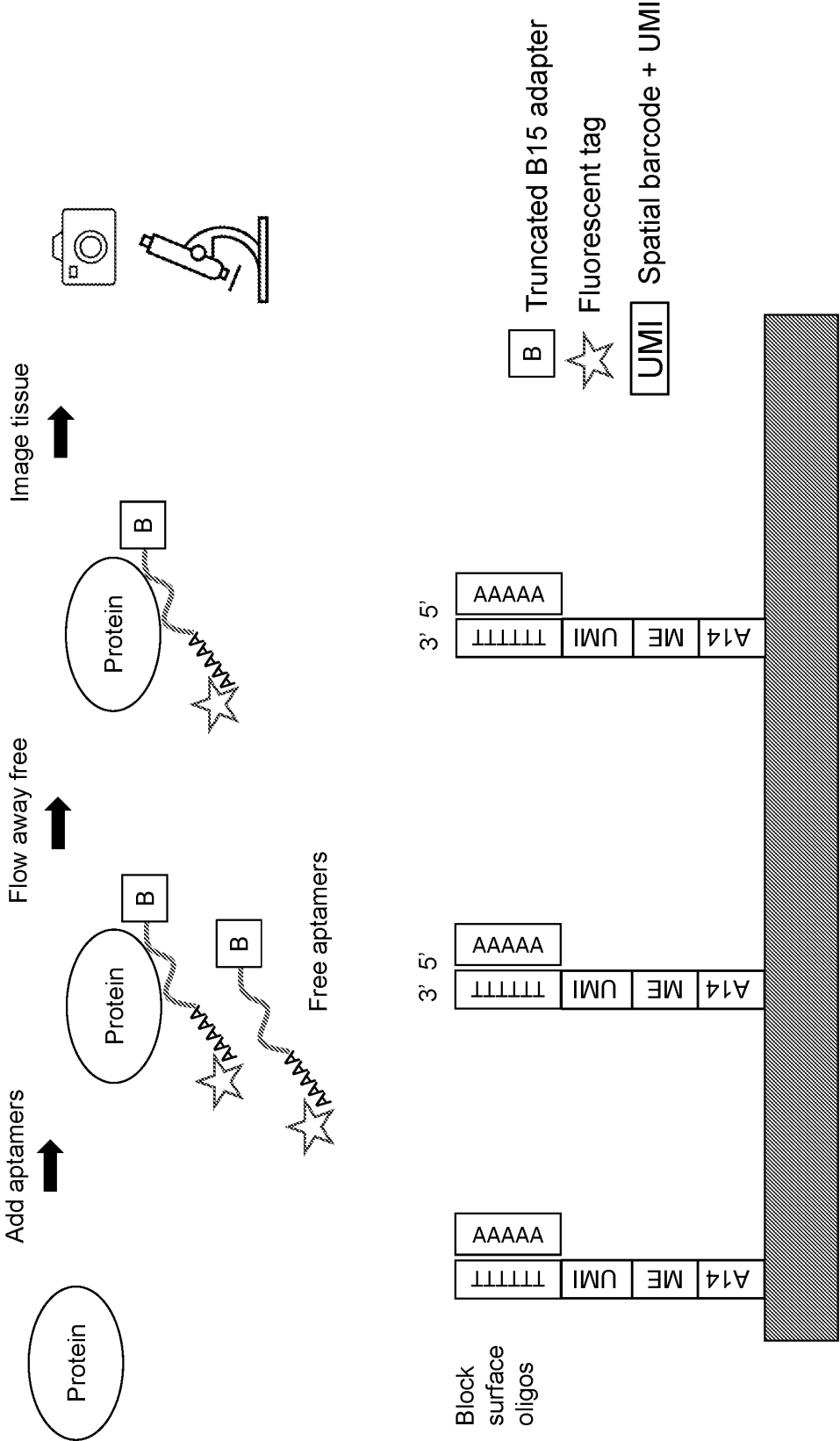
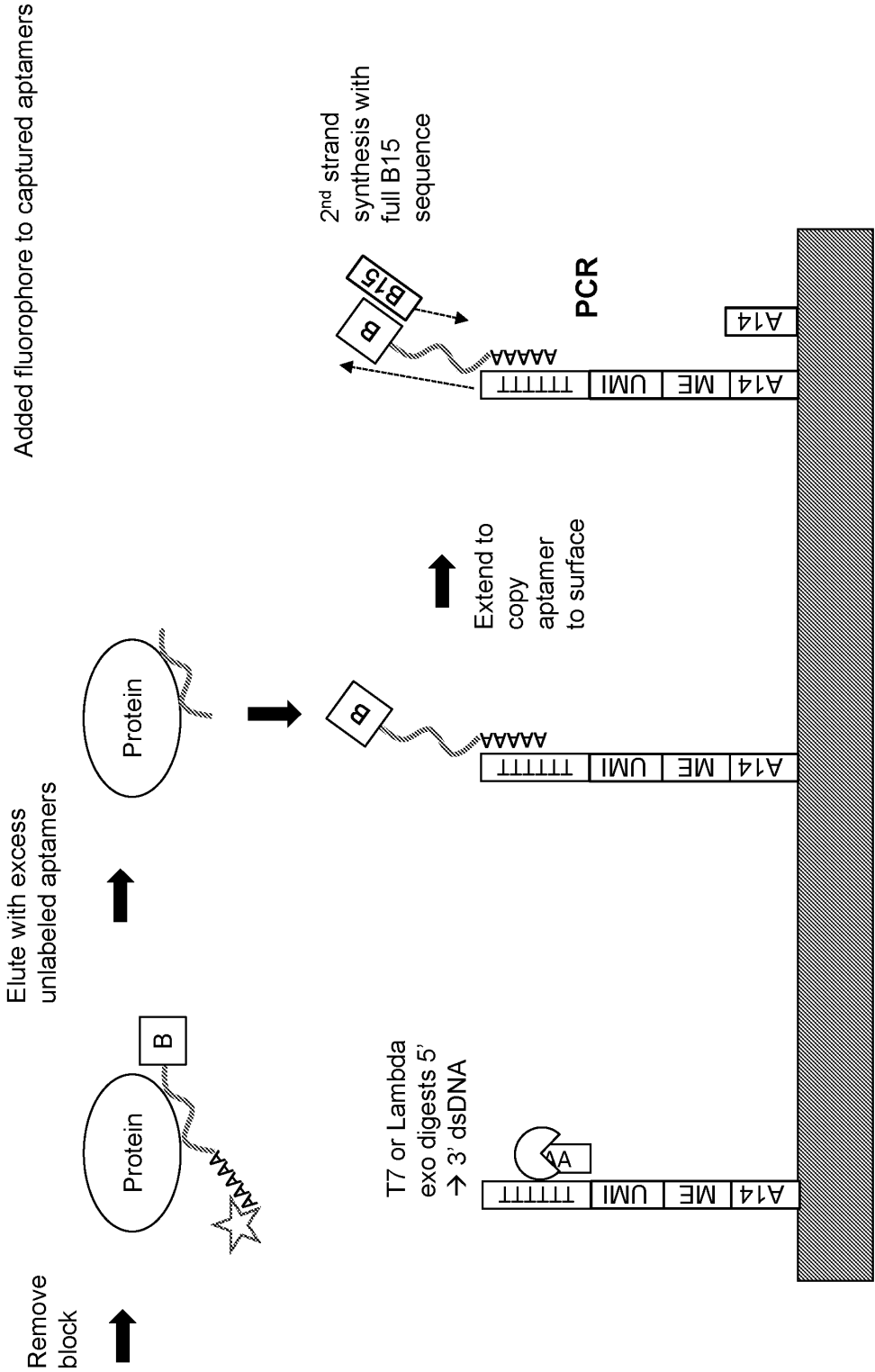
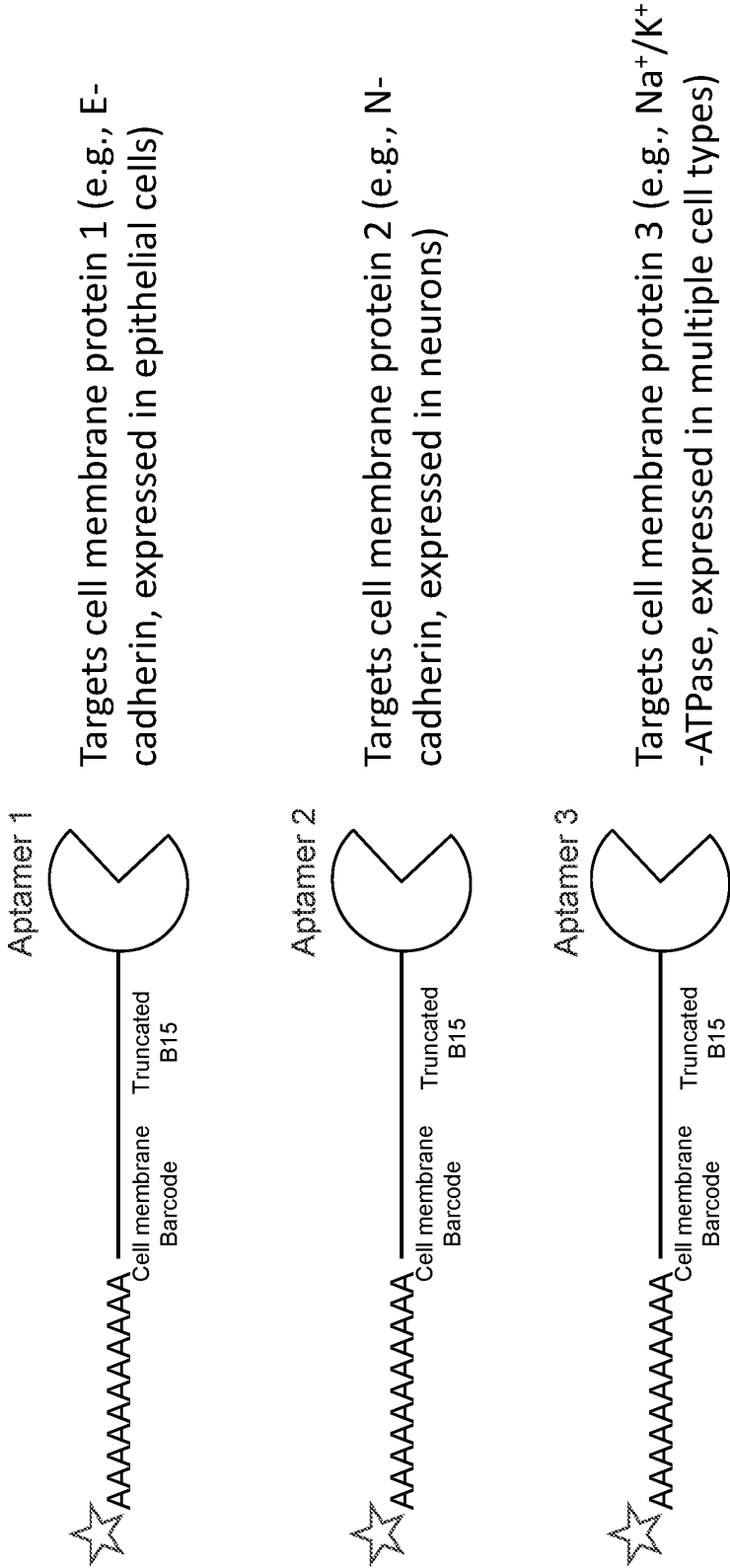


FIG. 8B



Multiple kinds of cell-membrane targeted aptamers containing a common fluorophore and barcode enable membrane detection across tissue types

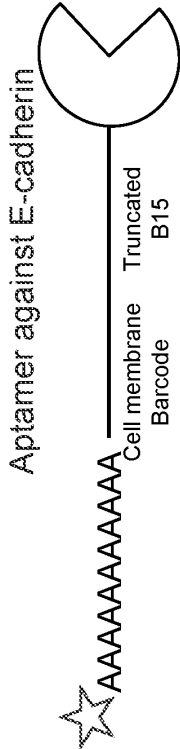


☆ = Fluorescent tag

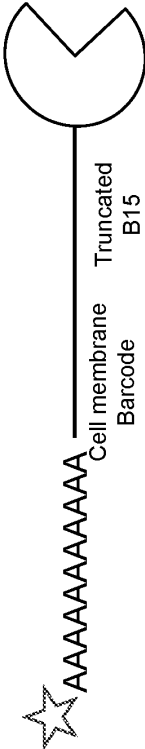
FIG. 9A

Co-detection of cell membrane and nuclear membrane with differentially labeled aptamers

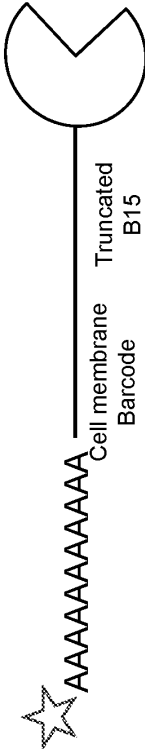
Cell membrane aptamers



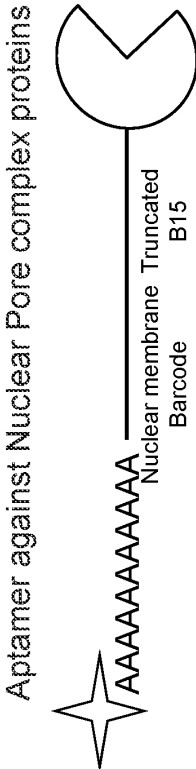
Aptamer against N-cadherin



Aptamer against Na⁺/K⁺-ATPase



Nuclear membrane aptamers



Star-shaped fluorescent tag #1 = Fluorescent tag #1

Star-shaped fluorescent tag #2 = Fluorescent tag #2

FIG. 9B